

rior, and each, isolated, and careless of the rest, clears his little spot in the wilderness; others remain at the port, gather from all sides the produce of their wandering brethren, and return to them the wares of other countries, or the value, in the current coin, of their own crude materials, which, isolated, had become but so much useless lumber. So it is in natural science: there are backwoodsmen in natural history,—men who furnish the raw material of science, as well as merchants, who convert that raw material into handy, available knowledge. And in the case of science as in that of ordinary life, it is of importance that the capitalists and the productive classes should understand that their interests are common, and that each derives his importance from the other.

We must have out-of-door naturalists before we have in-door naturalists, and any supercilious depreciation of one another cannot but remind a dispassionate observer of the old story of the belly and the members.

The author of the present work has furnished us with a book of the backwoodsman class. Some books are said to “smell of the lamp,”—this “babbles o’ green fields.” It is redolent of new hay and the hedge violet. Far away from the study of the anatomist, from the museum of the zoologist, it calls to mind nature in the concrete. We study analogies and affinities, beauties of adaptation and marvellous homologies, until we forget that after all, these creatures we dissect are not mere pieces of mechanism, but live and breathe, and have affections, and impulses, not absolutely dissimilar to our own. Such a book as this carries us from our skeletons and preparations, back to the recollection of the overflowing life of nature, to the trill of the skylark, and the caw of the rook busy overhead, what time we wandered not too scientifically thoughtful, nor yet without observation, along some green lane, while the hare now and then crossed the path, and the partridge rose whirring from the cornfield.

To those who take a scientific interest in nature without caring to penetrate into the hidden mysteries of organization, the Rev. Mr. Jenyns’s work will be most acceptable. It will find a place on their shelves beside ‘The Natural History of Selbourne.’ It is full of curious information upon the habits of the denizens of our fields and woods, and some excellent remarks upon “Habits of observing” are prefixed.

We cannot too heartily applaud the observations upon the importance and dignity of *facts* as such, and apart from any obvious immediate bearing (p. 13). Let those who would take the high *à-priori* road in science bethink them whether it may not be of more importance to establish even such a simple fact as that the field cricket “drops its dung on a little platform at the mouth of its hole,” than to prop up with quite remarkable ingenuity the hypothesis that the said field cricket is a “mucus animal of the third power—ovum³!”

PROCEEDINGS OF LEARNED SOCIETIES.

LINNÆAN SOCIETY.

April 16, 1850.—Robert Brown, Esq., President, in the Chair.

Read the conclusion of Mr. Miers's memoir "On the family of *Triuriaceæ*."

Mr. Miers commences his paper by a reference to his establishment of the genus *Triuris* in the 19th volume of the Society's 'Transactions,' and to the subsequent publication in the same volume by the late Dr. Gardner of another nearly related genus under the name of *Peltophyllum*; but the name of the latter having been derived from a leaf accompanying the specimen which Mr. Miers shows not to have belonged to it, but to be in all probability that of a seedling *Cissampelos*, he has found it necessary to substitute another generic name, and has redescribed it in the following terms:—

HEXURIS, Miers.—*Peltophyllum*, Gardn.

CHAR. GEN. *Flores* dioici. *Masc.* ignoti. *Fem.* *Perianthium* profundè 6-partitum, hyalinum, persistens; laciniis obovatis, præfloratione valvatis, singulâ infra apicem cornu subulato duplò longiore gyrato incluso, demùm patentibus, marginibus reflexis. *Ovaria* indefinitè numerosa, minima, densissimè in gynæcium aggregata, sessilia, gibbosovata, 1-locularia, 1-ovulata. *Stylus* subulatus, ad faciem internam sublateralis, apice paulùm incrassatus, obliquè truncatus et stigmatosus. *Fructus* ignotus.—*Planta pusilla, Brasiliensis, diaphana, albida*; rhizomate fibroso; caule recto, simplici, v. subramoso; foliis bracteiformibus, paucis, basilaribus, ovatis, acutis, adpressis, hyalinis; floribus solitariis v. subracemosis; pedunculis unifloris, basi bracteatis.

Hexuris Gardneri, Miers.

Peltophyllum luteum, Gardn. in Linn. Trans. xix. p. 157. t. 15.

Hab. in arenosis humidis Prov. Goyaz Brasilæ, Gardner, no. 3570.

The author next refers to two Ceylonese plants described by Capt. Champion in the Calcutta Journal of Natural History for April 1846, with a note by Dr. Gardner, who was at the time much struck by their resemblance to *Triuris* and his own *Peltophyllum*; but both gentlemen recognizing the manifest affinity of the Ceylonese plant to *Sciaphila* of Blume, and misled by the position in *Urticeæ* assigned to that genus by Dr. Blume, concurred in placing them in one or other of the divisions of that great natural group. Of these two genera Mr. Miers adopts the one, *Hyalisma*, as sufficiently distinct; but the second, *Aphylleia*, he refers without hesitation to *Sciaphila*, together with two undescribed plants from Sir W. J. Hooker's herbarium, found respectively by Cuming in the Philippine Islands, and by Purdie in Venezuela. He also corrects with much detail the descriptions of the embryo of the latter given by Mr. Champion and by Dr. Gardner. The following are his characters of *Sciaphila* and of *Hyalisma*, together with those of the known species:—

SCIAPHILA, Blume.—*Aphylleia*, Champ.

CHAR. GEN. *Flores* monoici, v. polygami. *Perianthium* in utroque sexu 6-partitum; laciniis oblongis, acutis, reflexis, æstivatione valvatis,

persistentibus. *Masc. Stamina* 6, in hermaphroditis abortu 3-1, in androphorum carnosum ferè sessilia; *filamenta* brevissima; *antheræ* transversim oblongæ, 4-loculares, apice rimâ transversali 2-valvatim hiantes. *Fem. Ovaria* plurima, in gynæcium carnosum subglobosum densè aggregata, obovata, sessilia, 1-locularia; ovulo solitario erecto. *Stylus* lateralis ferè basalis, plus minusve papilloso-subciliatus. *Stigma* truncatum, papilloso-plumosum, rarò simplex obtusum. *Carpidia* plurima, densissimè aggregata, obovata, styli basi persistente notata, monosperma. *Pericarpium* utriculare, subtenue, papilloso-rugosum, suturâ dorsali hians. *Caryopsis* obovata, brevistipitata: *endocarpium* arilliforme, 8-10-costatum, costis basi apiceque confluentibus, transversim cancellatis, interstitiis membranaceis. *Semen* ovatum, basi apiceque endocarpio adhærens: *testa* testacea, striis paucis longitudinalibus aliisque creberrimis transversis signata, apice saturatiùs colorata: *integumentum externum* pelliculare, reticulatum, testæ adnatum; *integumentum internum* tenuissimum, areolis hexagonoideis magnis oblongis reticulatum, nucleum arcè cingens. *Nucleus* (Embryo protoblastus) indivisus, homogeneus, carnosus-cereus, opalinus, cellulosus; cellulis parvis, subglobosis, materie grumosâ succoque oleoso farctis.—*Herbæ pusillæ, utriusque hemisphæræ indigenæ, hyalinæ; rhizomate fibroso; caule simplici, erecto vel subramoso; foliis paucis, bracteiformibus, alternis, ovatis, acutis, adpressis, venis destitutis, celluloso-rugosis; floribus spicatis, monoicis, superioribus ♂, inferioribus ♀; pedunculis unifloris, basi bracteatis; bracteis foliis conformibus.*

1. *Sciaphila tenella*, “tenuissima carnosâ aphylla, scapo simplicissimo erecto, floribus nutantibus, perigonii laciniis reflexis apice villosiusculis, stigmatè sessili punctiformi, baccis pluribus glandulis pellucidis tectis, semine subtriquetro, testâ subcoriaceâ.”

Sciaphila tenella, *Blume, Bijdr.* p. 515.

2. *SCIAPHILA MACULATA*, hyalina, caule simplici, foliis bracteiformibus adpressis lineis interruptis rubris maculatis, perianthii laciniis sublancoelatis reflexis apice intus barbatis alternis margine ciliatis, floribus inferioribus staminibus 3 cassis (?), carpellis densissimè congestis, utriculo hiantè.

Hab. in Insulis Philippinis, *Cuming*, no. 2088.

3. *SCIAPHILA PICTA*, hyalina, caule subramoso erecto flexuoso, foliis bracteiformibus maculis longis rubris pictis, perianthii laciniis oblongis acutis patentibus rubro-maculatis apice intus barbatis alternis sublterioribus ciliatis; tubo laciniarumque basi lineis punctatis violaceis creberrimis ornatis, floribus (an semper?) hermaphroditis, carpellis plurimis densissimè supra discum carnosum congestis staminibus 2 v. 1 munitis.

Hab. in Venezuela, ad fl. Apure, a cl. *Purdie* lect. Octobr. 1845. (*Herb. Hooker.*, exemplar unicum.)

4. *Sciaphila erubescens*, hyalina tenerrima, foliis bracteiformibus bracteisque acutis rubro-pictis, floribus punctis rubris maculatis, perianthii laciniis æqualibus oblongis acutis glaberrimis reflexis, flor. superioribus ♂ inferioribus ♀ interdum hermaphroditis, staminibus 3 cassis (?), utriculo bivalvi.

Aphyllia erubescens, *Champ. in Calc. Journ. Nat. Hist.* vii. p. 468.

Hab. in Insulâ Ceylon, ad Narawalle, prope Galle, in sylvis umbris.

HYALISMA, *Champ.*

CHAR. GEN. *Flores* monoici, v. dioici. *Perianthium* in utroque sexu 8-partitum; laciniis lanceolatis, æqualibus, patentibus, celluloso-rugosis basi in urceolam coalitis, æstivatione valvatis, persistentibus. *Masc.*

Stamina 4, in androphorum carnosum prominulum ferè sessilia, laciniis alternis opposita; *filamenta* brevissima; *antheræ* 4-loculares, peltatæ, apice lineâ transversâ bivalvatim hiantes; *pollen* sphæricum simplex. *Pistilli* rudimentum nullum. *Fem. Stamina* nulla. *Ovaria* plurima, (50-60) densissimè in gynæcium carnosum liberum aggregata, obovata, 1-locularia; *ovulo* unico erecto. *Stylus* ferè basilaris, ovario 3-7-plò longior, subulato-filiformis, celluloso-articulatus, apice subobtusos, stigmatate inconspicuo. *Carpidia* plurima, utricularia, obovata, breviter stipitata, structurâ omninò *Sciaphilæ*.—Herba *Ceylonica*, *pusilla*, *hyalina*; rhizomate *fibroso*; caule *simplici*, *erecto*; foliis *bracteiformibus alternis*, *ovatis*, *acutis*, *venis destitutis*, *celluloso-rugosis*; *spicâ terminali*; floribus *pedicellatis*, *sæpissimè dioicis*, *interdum monoicis*, *et tunc superioribus ♂ inferioribus ♀*; *pedicellis unifloris*, *basi bracteatis*.

Hyalisma ianthina, *Champ. in Calc. Journ. Nat. Hist.* vii. p. 466 cum icone.

Hab. in Insulâ Ceylon, prope Galle, in sylvis humidis.

To these plants Mr. Miers adds the following, described from specimens recently sent from Parà by Mr. Spruce.

SORIDIUM, Miers.

CHAR. GEN. *Flores* monoici. *Perianthium* in utroque sexu 4-partitum; laciniis ovatis, acutis, patentibus, celluloso-rugosis, æstivatione valvatis, persistentibus. *Masc. Stamina* 2, supra discum minimum inclusum ferè sessilia, laciniis alternis opposita; *filamenta* brevissima; *antheræ* transversim elongatæ, compressæ, 4-loculares, rimâ verticali longitudinaliter 2-valvatim septicidè hiantes; *pollen* globosum, irregulariter subtrivalvatim rumpens. *Ovaria* plurima, in capitulum densè aggregata, obovata, sessilia, 1-locularia; *ovulo* solitario erecto. *Stylus* lateralis, ferè basilaris, pilis longis clavatis plumosus. *Stigma* obconicum, truncatum, piloso-plumosum. *Carpidia* plurima, baccata, radiatim aggregata, obovata, stylo persistenti basilari notata, monosperma. *Pericarpium* siccum, subcoriaceum. *Semen* ovale; *testâ* coloratâ nucleoque omnino *Sciaphilæ*.—Herba *Amazonica*, in *uliginosis umbrosis indigena*, *hyalina*; rhizomate substolonifero, *radiculas hinc inde emittente*; caule *simplici erecto*; foliis *paucis*, *bracteiformibus*, *alternis*, *ovatis*, *acutis*, *venis destitutis*, *celluloso-rugosis*; floribus *spicatis*, *superioribus ♂*, *inferioribus ♀*; *pedunculis 1-floris*, *basi bracteatis*.

SORIDIUM SPRUCEANUM, Miers.

Hab. prope Parà Brasilæ, ad Caripi, in sylvis umbrosis.

Having concluded the description of these remarkable plants, which he gives in much detail, Mr. Miers proceeds to observe on their affinities. They evidently belong to one common group with *Triuris*, which the author originally suggested would form the type of a distinct order (*Triuriaceæ*), subsequently adopted by Dr. Gardner, under the name of *Triuraceæ*. He first dismisses without hesitation the hypothesis that they have any relationship to *Menispermaceæ* or *Smilaceæ*, as suggested by Dr. Gardner with reference to *Hexuris*; or to any section of *Urticeæ*, to which *Sciaphila* was referred by Dr. Blume, and in which he was followed by Endlicher and Gardner. He commences his investigation by calling particular attention to their habit as plants destitute of real leaves; composed of little more than cellular tissue; void of green colour, of fibres and of ducts; and furnished with a seed not merely acotyledonous, but

without distinct embryo. He refers to Mr. Brown's memoirs on *Rafflesia*, and to Mr. Griffith's on the plants referred to *Rhizanthæa*, for instances of inembryonal seeds; and observes that we have no satisfactory evidence of the existence of an embryo, in the ordinary sense of the term, in *Burmanniaceæ*. He notices also the imperfect condition of the embryo in *Cuscuta*, in *Orobanchææ* and in *Monotropa*; and the striking discrepancy between the well-developed cotyledonous embryo of the leaf-bearing *Cactææ* and the solid and undivided embryo of the leafless genera of that family. Admitting then, in *Triuriaceæ*, *Burmanniaceæ*, *Balanophorææ*, &c., the existence of an organ endowed with the function, but wanting the usual structure, of the embryo, he proposes for this organ the name of *protoblastus*, with the view of distinguishing between a *protoblasteous* and a *cotyledonous* embryo. Modifications of the protoblasteous structure may occur; and the author refers to *Ceratophyllum* and to several genera of *Aroideæ* (especially *Cryptocoryne*) as furnishing instances of anomalous forms of embryo, which are best explained by a reference to this view of the subject. He also notices some peculiarities in the structure of the seed of *Pistia*, which he regards as in some points analogous to that of *Sciaphila*, although widely different from it in others.

Setting aside then the Acotyledonous embryo as a character of primary importance, and regarding it only as an imperfect condition of development, common to all the great divisions of the vegetable kingdom, it is evidently among the *Endogens* that *Triuriaceæ* should take their place, and the author concludes that upon the whole the greatest amount of approximative characters leans towards *Fluviales*. He then gives the characters of the order and its subdivisions as follows:—

TRIURIACEÆ, *Miers* (1841). Triuraceæ, *Gardn.* (1843). Triuridaceæ, *Lindl.* (1846).

CHAR. ORD. *Herbæ* parvulæ, subhyalinæ; *rhizomate* fibroso, interdum substolonifero; *caule* subsimplici, texturâ cellulosâ, vasis deferentibus in axi centralibus; *foliis* alternis, bracteiformibus, sessilibus, nervis destitutis. *Flores* monoici, v. dioici, rariùs polygami, spicati; *pedicellis* alternis, 1-floris, basi bracteatis. *Perianthium* in utroque sexu 3-4-6-8-partitum, hyalinum, texturâ celluloso-bullatâ, v. papilloso-rugosâ; laciniis ovatis, acutis, basi in tubum brevissimum coalitis, apice interdum processu elongato donatis, æstivatione valvatis. *Stamina* numero varia, pauca, in fundo perianthii ferè sessilia, supra androphorum sæpissimè magnum carnosum inserta; *antheræ* 4-loculares, 2-valves, rariùs in lobos 2 sejunctæ. *Ovaria* plurima, in gynæcium toro adnatum densissimè aggregata, 1-locularia; *ovulo* unico, e basi erecto. *Stylus* excentricus, introrsum lateralis, sæpissimè ferè basilaris, glaber aut plumoso-fimbriatus. *Stigma* obsoletum, v. truncato-clavatum. *Carpidia* plurima, baccata, excentrica, obovata, stylo persistente ferè basilari notata, coriacea et indehiscencia, v. interdum utricularia dorso valvatim dehiscencia; *caryopside* obovatâ, telâ arillæformi donatâ; *testâ* ovatâ, durâ, testacêâ, coloratâ, transversim scalariformi-striatâ. *Nucleus* (embryo protoblasteus) opalinus, integumento areolis elongatis reticulato inclusus, texturâ mollis, cellulosus; cellulis materie oleosâ